

Abstract of the Disclosure

A hybrid UWB receiver detects a transmitted data symbol in an ultra-wide-bandwidth communications system. A filter is matched to a received reference signal and data signal corresponding to the transmitted data symbol. A delay block is connected to an output of the filter. A multiplier is connected to an output of the delay block and an output of the filter. An integrator is connected to an output of the multiplier. Then, a largest output of the integrator is selected to provide a basic building block of an ultra-wide-bandwidth the receiver to detect a received data symbol corresponding to the transmitted data symbol. Multiple basic building block can then be interconnected to construct the hybrid receiver.